1-1-1973

Efficacy of pre-school programs for young retarded children not eligible for enrollment in trainable or educable classes

Marie Hazel

THE EFFICACY OF PRE-SCHOOL PROGRAMS FOR YOUNG RETARDED CHILDREN NOT ELIGIBLE FOR ENROLLMENT IN TRAINABLE OR EDUCABLE CLASSES

by

Sharon Marie Hazel

A RESEARCH PAPER
SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN EDUCATION
(EDUCATION OF MENTALLY HANDICAPPED)
AT THE CARDINAL STRITCH COLLEGE

Milwaukee, Wisconsin

1973

TABLE OF CONTENTS

This research paper has been
approved for the Graduate Committee
of the Cardinal Stritch College by

Sr Gabrielle Kowalski
(Advisor)

Date May, 1973

ACKNOWLEDGEMENTS

The writer wishes to express her appreciation to Sister Gabrielle Kowalski, O.S.F. for her direction of this study and her knowledge and insight in the field of mental retardation. Appreciation is also extended to the faculty of the Graduate Division of the Cardinal Stritch College, and my advisor, Sister Joanne Marie Kielban, O.S.F., for her encouragement. Special thanks to the typist, Colette Shelton, for her ability to read my scribbling, and my other roommates, Teresa and Kathleen, for their patience with me during the writing of this paper.

CHAPTER I

INTRODUCTION

One of the main contributions early education can make to a child's intellectual development is the enlargement of his span of experience. This writer intends to show through a review of research, that the first four or five years of a child's life are the period of his most rapid growth in both physical and mental characteristics. This is the time at which he is most susceptible to environmental influences. As a result, it is in the early years of his life that deprivations can be the most disastrous in effect. These deprivations can be compensated for in later years only with much difficulty, and then probably not in full. It appears that it is harder to modify undesirable learnings than to acquire new ones.

> Increasingly, emphasis is being placed on early identification and consequent early special programming. Ideally, children are identified prior to school age and receive appropriate preschool experiences in preparation for a modified public school curriculum or for assignment to regular grades if shifts in levels of intellectual functioning and adaptive behavior warrant the latter.[1]

A child's ability to learn can be greatly enhanced through exposure to a wide variety of activities and social

---

[1] "Mental Retardation", Encyclopedia of Education, 1971, Vol. VI, 338.

and mental interactions with other children and adults. It is reasonable to conclude that the postponement of an educational contribution by society, until the children reach the age of six, greatly limits the flowering of their potentials.

The Problem

Statement of the Problem

In this paper the writer has shown how developmental trends in education have led to the necessity for pre-school programs for the mentally retarded child.

Purpose of the Study

The purpose of this review of research is to ascertain factors related to the efficacy of pre-school programs for the young mentally retarded child. Specific objectives include: emotional maturity, adequate social adjustment, eligibility and readiness for school programs. By identifying research related to these specific objectives for the pre-school trainable and educable mentally retarded, this writer feels that their basic needs will be better satisfied.

Definition of Terms Used

Supported by the National Institute of Mental Health, the American Association of Mental Deficiency (AAMD) has published a manual in mental retardation. In the 1959 edition Heber states:

Mental Retardation refers to subaverage general intellectual functioning which originates during the developmental period

and is associated with impairment in adaptive behavior.[2] Educable Mentally Retarded have been defined as having IQ's from 50 to 75. They are eventually expected to achieve academic work to at least the third grade level and occasionally to the sixth grade level by the time they leave school.[3] Trainable Mentally Retarded children, with IQ's of 25 to 49, are not expected to achieve the necessary academic skills. Self care and social adjustment within a restricted environment will be the goal of their school experience.[4]

Summary

Early education occurs under many names: Nursery School, Head Start, Montessori and Day Care Centers, but the common aim of all these groups is to help children learn. It is done in such a way that the youngsters live their years at ages three, four, and five in the richest, most satisfying, and most constructive ways possible.

---

[2]Rick Heber, "A Manual on Terminology and Classification in Mental Retardation", American Journal of Mental Deficiency Monograph Supplement, 1964: p. 3.

[3]The President's Panel on Mental Retardation: A Proposed Program For National Action to Combat Mental Retardation (Washington D.C., Government Printing, 1962), p. 196.

[4]Ibid.

CHAPTER II

REVIEW OF THE LITERATURE

> Learning begins at birth and so does education, if by education we mean the influence of planned experience on the growing organism.[1]

Most early theorists conclude that cognitive development will follow relatively predictable patterns determined by the intellectual level of the child.[2] But there is also a need to provide environmental enrichment activities that are matched to the child's developmental level at each stage.

The importance of pre-school experience for the mentally retarded cannot be overlooked. In view of the retarded child's particular handicap, programs of early education seem particularly crucial if the individual is to be given the opportunity of reaching his maximum potential. Although it has been recommended that programs at the pre-school and post-school levels be initiated, few school systems have made provisions for such on a routine basis.

Before investigating contemporary standards for the pre-school education of the mentally retarded this writer

---

[1]Halbert B. Robinson, and Nancy M. Robinson, Early Education (Chicago: Aldine Publishing Company, 1968), p. 38.

[2]Bernard Spodek, The Disadvantaged Child (Boston: Houghton Mifflin Company, 1966), p. 184.

will review both the early cognitive development of normal children as well as the historical background of mental retardation; the intellectual, social and emotional dimensions of the problem; and exemplify the need for early identification, educational experiences and a conducive environment that will foster a nurturing atmosphere.

Early Cognitive Development

The importance of early cognitive development and the influence of environment have been under discussion for centuries. This writer will attempt to give a brief synopsis of the thoughts of some of the great minds of history.

> Some two thousand years ago Plato drew us a sketch for a "great society". Central to its realization was the proposition that young children be removed from the untutored care of their parents to institutions staffed with trained personnel.[3]

Early schools of thought emphasized a movement toward individual differences. Alfred Binet, a French psychologist and physician, devised the first useful type of intelligence test in 1905. He thought of intelligence in terms of qualities such as being able to make adaptions, being self-critical, and being able to assume a task-oriented attitude and persist toward a goal. His idea of mental age evolved from a concept that children of certain ages are capable of specific tasks which increase in complexity with age. Binet's scale emphasized the verbal factors of intelligence. He worked mainly

---

[3]Burton Blatt, The Intellectually Disfranchised (Boston: Monograph Series of the Department of Mental Health-Division of Mental Hygiene, 1966), p. 9.

with public school children of high and average mental abilities.[4]

In the early 1900's Spearman held that intelligence was composed of a general factor and certain specific abilities. L. L. Thurston in 1926 expanded on Spearman's theory by suggesting that a group of factors, termed primary mental abilities, would better describe intelligence. He named these number, spatial, memory, verbal, word fluency and reasoning. J. P. Guilford has proposed a multifactor theory of intelligence suggesting that intelligence can be divided into 120 components. All of these theories indicate that there are many ways of looking at intelligence and that the way it is defined will determine how it is measured.[5]

Jean Piaget, a Swiss psychologist, is spending his life in concentrated, persistent investigation of children's growth in thinking and learning. He is quoted widely in support of, and in opposition to, early training in symbolization and abstract learning. He did not set out to prove a particular theory, only to find out how children learn. Piaget did this by interviewing children, observing them, and offering them a range of simple to complex tasks involving concepts of various kinds. These interviews were grouped around different areas of intellectual understanding such as language, mathematical concepts, and morality.

---

[4]Robert M. Smith, Clinical Teaching: Methods of Instruction for the Retarded (New York: McGraw-Hill Book Company, 1968), p. 15.

[5]Ibid., pp. 15-16.

Through this careful study of children he discovered the existence of a developmental sequence. This implies that certain kinds of concepts cannot be understood by children before some degree of maturation has taken place.[6]

Historical Development of Education for the Mentally Handicapped

It wasn't until the seventeenth century that society began to establish institutions for the mentally defective. Research in this area began around 1800 and was carried out by medical men rather than educators. The major contributions of Itard, Seguin, Montessori, Decroly and Descoeudres were in the fields of psychological diagnosis. Their major concern was the education of the mentally defective child.

One of Jean Itard's most famous works is the experimental account of the Wild Boy of Aveyron. In it he placed emphasis on sensory training, one of the most important areas in any pre-school readiness program for both the normal as well as the mentally retarded child. This experiment in the training of an idiot provided us with objective reports on retardation.[7]

Itard's most famous student was Seguin. He based his theory of education on a neurophysical hypothesis. In this

---

[6]Jean Piaget, The Origins of Intelligence in Children (New York: W. W. Norton and Company, 1952), pp. 359-363.

[7]Samuel A. Kirk, and G. Orville Johnson, Educating the Retarded Child (Cambridge, Mass: Houghton Mifflin Company, 1951), pp. 68-69.

theory he differentiated between two types of feeblemindedness, the superficial type in which the nervous system has been damaged or weakened and a profound type in which the central nervous system has always been defective. He was an advocate of muscular activities and gymnastics. It was his belief that all the senses should receive formal training. His emphasis was placed on the whole child, the need for individual instruction, and the importance of good rapport between the teacher and the pupil. Activities should satisfy the needs and desires of the child.[8]

The contributions of a woman doctor and educator, Maria Montessori, were of as great importance in her day as they are today. "Montessori refers to the period of life between birth and three as one in which not only the intelligence but all the psychic faculties are being formed."[9] "Her approach reflects the child's immediate need to know and the development of dispositions (attitudes) in him which make learning possible and pleasurable to him."[10] She hypothesized that mental deficiencies were more educational than medical in origin. Through her research and work with retarded and normal children she deduced the importance of sense and muscle training. With her concentration on the use of didactic

---

[8] Ibid.

[9] Nancy McCormick Rambusch, Learning How to Learn (Baltimore: Garamond Press, 1962), p. 18.

[10] Ibid., p. 7.

materials she left little to the ingenuity and imagination of the child. Much of Maria Montessori's work has been criticized because of this approach, but her contributions to pre-school education cannot be denied.[11]

A proponent of educational programs for the retarded was a Belgian physician, O. Decroly. Through the use of educational games, in the area of sensory discrimination, he hoped to lengthen the attention span of the child.[12]

Alice Descoeudres, a student of Decroly, was one of the first to have published a comprehensive educational training program for the mentally handicapped. She was of the belief that the severe and profoundly retarded should not be permitted in the public school system. For the trainable and educable retarded child she emphasized perceptual knowledge and sense and physical training. "Descoeudres advocated a grouping of different school subjects around a central theme, which she called 'correlation'."[13] She believed that this would strengthen concepts and ideas of various situations. She believed in individualized instruction geared to the needs of each child. All learning should be applied immediately in practical situations so that it would become a functional part of the individual.

---

[11]Halbert B. Robinson, and Nancy M. Robinson, The Mentally Retarded Child (University of North Carolina: McGraw-Hill Book Company, 1965), pp. 458-459.

[12]Ibid.

[13]Ibid., p. 459.

Through this brief summary it can be seen that historically, education of the retarded stressed sense and muscle training through the use of self-teaching materials. The first educators to break with this procedure were Decroly and Binet, with their implementation of experiences.[14]

Methodological Techniques in the Education of the Mentally Retarded

In the last two decades much emphasis has been placed on early sensorimotor activities of the normal child as well as the retarded.

> "Many mentally retarded children suffer from disabilities in certain areas of performance. Because of poor adaptive ability, they are unable to devise compensatory means of reducing the effect of the disability."[15]

Some of the leading proponents in this field of learning disabilities are Kephart, Doman and Delacato and Frostig.

The Purdue Perceptual Motor Survey developed by Kephart is one of the most comprehensive tools for assessing perceptual-motor development. It assists children to develop skills in gross and fine motor movements including balance, posture, eye-hand coordination and locomotion.[16]

A physical therapist, Glen Doman, and an educator, Carl

---

[14] Ibid.

[15] Marion J. Erickson, The Mentally Retarded Child In The Classroom (New York: MacMillian Company, 1965), p. 56.

[16] Patricia I. Myers, and Donald D. Hammill, Methods For Learning Disorders (New York: John Wiley & Sons, Inc., 1969), pp. 59-61.

Delacato initiated a treatment method for brain injured children known as patterning therapy. Stimulation of all the sensory modes is used; eye exercises are prescribed; crawling and creeping are utilized. The reason for patterning is to stimulate the body and to provide or stimulate crawling patterns where they are deficient in the brain injured.[17]

Marianne Frostig worked with disorders of a perceptual and neurological nature. She found that the most frequent cause of learning disabilities is a disturbance of the child's perceptual abilities--his visual perception, his auditory perception, his kinesthetic perception, or a combination of these. The Developmental Test of Visual Perception is the work of Frostig.[18]

Any of the sensorimotor tests just mentioned, followed by diagnosis and observation, should determine the pre-school child's major weaknesses. This is what is meant by clinical education, special training in the areas in which the child has potentialities which need assistance in their development, in an individual or group situation.

Psychological Development

One of the major concerns facing schools is to discover pre-school mentally handicapped children. Few problems are

---

[17]Carl H. Delacato, The Diagnosis and Treatment of Speech and Reading Problems (Springfield, Illinois: Charles C. Thomas, 1963), p. 105.

[18]Marianne Frostig, Developmental Test of Visual Perception (Alto, California: Consulting Psychologists Press, 1964).

encountered in the identification of the moderately or severely retarded that are labeled as trainable by our schools.

Table 1. Verbal descriptions and ranges in IQ scores for degrees of retardation[19]

WORD DESCRIPTION OF DEGREE OF RETARDATION	LEVEL OF DEVIATION IN MEASURED INTELLIGENCE	RANGE IN STANDARD DEVIATION VALUE	CORRESPONDING RANGE IN IQ SCORES FOR TESTS WITH S.D. OF 15
Borderline . .	-1	-1.01 to -2.00	70-84
Mild	-2	-2.01 to -3.00	55-69
Moderate . . .	-3	-3.01 to -4.00	40-54
Severe	-4	-4.01 to -5.00	25-39
Profound . . .	-5	-5.00	25

The majority of these children are identified during infancy and early childhood because of their slowness in such areas as mobility, communication and social interaction. It is much more difficult to identify the mildly retarded or educable mentally retarded because many of these go unnoticed until they enter school. Pre-schools are dependent upon the accurate diagnosis of children through referrals by pediatricians, by public health organizations, by social agencies, or by identification of the siblings of special class children. The next step is an adequate diagnosis of their mental handicaps.

Young children are often shy and bashful and may not respond to a psychological examination. A comfortable rapport between the psychologist and child must be established before testing. The psychological evaluation will determine the child's eligibility for the pre-school program and provide

---

[19]"Mental Retardation", Encyclopedia of Education, 1971, Vol. VI, p. 335.

information concerning his level of performance in various areas. By utilizing this information the psychologist can develop instructional medifications for the retarded child's acquisition of academic and social skills.

The Gesell Testing of Infant Maturity, the Kuhlmann Test for Infants, and the Stanford Binet Intelligence Scale are among the most widely used tests for infants and children.[20] Two of these tests will now be explained in greater detail.

KUHLMANN TESTS FOR INFANTS

Age 18 Months:

1. Drinking: Child can take several swallows from a glass in immediate succession.
2. Feeding with spoon or fork: With food in front of it and a spoon or fork placed in its hands, the average child of 18 months will make some attempt to feed itself. Any successful effort is sufficient.
3. Speech: Child unmistakably can use such simple words as "mama," "baby," "doll," "yes," "no," "eat," etc., or understand a simple question without gesture.
4. Recognition of objects in picture: Child shows ability to recognize objects in a large colored picture by interested gaze or an exclamation.
5. Spitting out solids: Child spits out or removes voluntarily things that are distasteful, e.g., a bit of bread soaked in vinegar.

Age Two Years:

1. Pointing out objects in picture: Child can point out such things as a hat, a man, dog, etc., in response to such questions as "show me the dog," etc.
2. Imitation of simple movements: Child can imitate such simple movements as clapping both hands, putting palms of hands on top of head, etc.
3. Obeying simple commands: Child responds satisfactorily to such requests as "catch the ball," "throw it to me," etc.

---

[20]Elmer W. Weber, Mentally Retarded Children and their Education (Springfield, Illinois: Charles C. Thomas, 1963), p. 60.

4. Copying a circle: Child makes some effort at least to copy a circle that has been shown and reproduces it with partial success.
5. Removal of wrapping from food before eating: Child removes wrapper from candy or bit of sugar before taking it in its mouth.

The Kuhlmann scale continues through year fifteen, but for children of age three and above, the tests generally used in this country are either the Stanford or Terman-Merrill Revisions of the Binet-Simon Tests.[21]

STANFORD-BINET TESTS FOR CHILDREN

Age Three Years:
1. Points to parts of body: Nose, eyes, mouth, hair.
2. Names familiar objects: Key, penny, knife, watch, pencil.
3. Enumerates objects in shown pictures.
4. Gives sex.
5. Gives last name.
6. Repeats six- to seven-syllable sentences.

Age Four Years:
1. Compares lines.
2. Discriminates between several simple geometric forms.
3. Counts four pennies.
4. Copies square.
5. Shows comprehension by giving appropriate reply to two out of three of the following questions:
   (a) What must you do when you are sleepy?
   (b) What must you do when you are hungry?
   (c) What must you do when you are cold?

Age Five Years:
1. Compares weights of 3 and 15 gm.
2. Names colors: red, yellow, blue, green.
3. Makes simple esthetic comparisons.
4. Defines chair, horse, fold, doll, pencil, table, in terms of use or better.
5. Combines successfully a divided triangle.
6. Executes three commissions: puts key on chair, brings box, shuts door.

Age Six Years:
1. Distinguishes between right and left.
2. Indicates missing parts in mutilated pictures.
3. Counts 13 pennies.
4. Shows comprehension by answering two of the following three questions correctly: What is the thing to do (a) if it is raining when you start to school? (b) If you find that your house is on fire?

---

[21] Ibid., pp. 131-132.

(c) If you are going some place and miss your car?
5. Names coins: nickel, penny, quarter, dime.
6. Repeats sentence of 16 to 18 syllables.[22]

These tests together with the clinical observation of the examiner, a medical examination, a case history of the development and problem of this particular pre-schooler will be of aid in diagnosing his mental abilities and determining the kind of individualized educational program appropriate for this child.

A secure home environment will give the pre-school retarded child an opportunity to participate in activities at his own rate of development. He should be loved, respected and given a share in household responsibilities. He will have to be taught many of the things a normal child learns naturally. If he is overly protected in the home this will only make his adjustment to the school environment and activities more difficult.

> The basic emotional needs of mentally handicapped children do not differ from the emotional needs of children with normal intelligence. There are, however, some differences which should be noted and provided for. These are:
>
> (1) Mentally handicapped children from subcultural environments are often starved for adult attention. The bid for adult attention in this type of preschool is greater than that usually found in regular nursery schools and kindergartens. Provision for this difference is made through a smaller ratio of children to teachers, usually one teacher to four or five children.
>
> (2) Many more physical disabilities are found among preschool mentally handicapped children. It is necessary, therefore, to provide assistance for these children in motor activities and self-help so that frustrations do not occur.

---

[22] Ibid., pp. 132-133.

(3) Much more parent education and more parent-teacher interaction must be provided to help parents accept and understand their mentally handicapped children.[23]

Social Development

One of the biggest problems for a retarded child may be in gaining social acceptance. The pre-school retarded child needs a very special program designed to meet his particular needs. There are still too few programs available because of a lack in the number of schools. "While many of the features of the preschool program for mentally retarded children resemble regular nursery school programs, the concern for the treatment of disabilities that accompany mental retardation and cultural deprivations is an important differentiating feature of the preschool program for mentally retarded children."[24]

Some of the important objectives a pre-school tries to foster in the area of social development are:

1) socialization with other children through a free-play period

2) small group eating together, sharing things they have brought, with others

3) field trips and group games to initiate social interaction and social development.[25]

In these activities the obvious differences between the

---

[23]Kirk, Educating the Retarded Child, p. 141-142.

[24]Erickson, The Mentally Retarded Child In The Classroom, p. 60.

[25]Kirk, Educating the Retarded Child, p. 151.

normal child and the mentally handicapped can be seen.

1) Retarded children lack imagination which makes it necessary for the teacher to initiate many activities.

2) They need the stimulation of the pre-school activities to learn to play and participate with other children.

3) Handicapped children need constant repetition of activities because they seem to repeat the same errors over and over again.

4) The mentally handicapped child has neither the understanding nor the motor facility of normal children his age. They function poorly in the area of neuromuscular coordination.

5) Most seem oblivious to danger, therefore they require more structured recreational programs than normal children of the same chronological age.[26]

These are areas in which a pre-school program must stimulate the young retarded child. In addition to its emphasis on self-help and socialization, it should use every opportunity to develop intellectual abilities which are usually deficient in the pre-school retarded child.

Readiness For School Programs

Most pre-school children need more social and emotional readiness than academic. However, we should not overlook the importance of furnishing an educational environment conducive to the child's maximum potential.

In a flexible environment the pre-school retarded child

---

[26]Luma Louis Kolburne, Effective Education for the Mentally Retarded Child (New York: Vantage Press, 1965), pp. 6-7.

should have a balance of work, play and rest. Teaching through the use of games, physical activities, and music will help to form a permanent impression on the child.

The pre-school handicapped youngster will be expected to attain a certain amount of adequacy and accomplishment in his daily activities. He will have to learn to get along with his peers, to play with others individually and in a group, and to respect the property of others. His curriculum should stress the development of basic skills and social, cultural, and personal competencies. He should be aware of the proper habits of cleanliness and grooming. Also integrated into the program are social graces and courteous phrases such as "thank you" and "may I?".

In the school environment the retarded as well as the normal child should learn to speak in a modulated voice and to listen attentively. He should be kind and considerate of others and learn the values of honesty, cooperation and fairness.

Music is an opportunity conducive for the retarded child to express his moods and release tension. Muscle coordination can be developed through marching and playing.

Structured art activities stressing the fundamental experiences of cutting, pasting and coloring help to develop small muscle coordination. Working with various media give the handicapped child a new dimension to his world of experiences. During the child's important formative years these

experiences are a necessary requisite for pre-school readiness.[27]

The pre-school environment should stimulate the intellectual development of these children through language activities, stories and dramatizations. They should be given an opportunity for self-expression to correlate their feelings with their intellectual activities. This is an age in which language develops at an accelerated rate, so every activity that the child is a participant in should be utilized for the development of his language abilities. He should both understand and use language in the expression of his ideas.[28]

The learning experiences of early home life must help the retarded child adjust happily to people and situations he will meet in school and as he grows older. The pre-school child's home must give him the opportunity for interesting activities that he can enjoy and participate in at his own rate of development. The retarded child should be loved, respected, and share responsibilities.

The retarded child's experiences in a pre-school environment should help him foster a healthy attitude about his home and his role in the family. The emotional atmosphere of acceptance in the pre-school will give him confidence for acceptance in the home. Regardless of his lack of abilities, his awkwardness, or his behaviorisms, he is accepted as he is

---

[27]Smith, Clinical Teaching: Methods of Instruction for the Retarded, p. 137.

[28]Kirk, Educating the Retarded Child, pp. 149-151.

in school, and this positive reinforcement will hopefully carry over into his home environment.

A parent education program should be one of the major aims of the pre-school. The school should have an appreciation of the problems that parents of mentally handicapped children face. Frequent visits by the parents to the pre-school will give them an idea of what is being done with their children and to learn some of the techniques used by the teachers of their children. The school should make an effort to reduce the anxieties of the parents in order to assist them in understanding the limitations of their children and to help them deal with their children more intelligently. This is done by frequent discussion of the problems of the child with the parent at the school and at home.

Mentally retarded children require special methodology. They have to be taught things that normal children learn incidentally. They often require continued repetition of experiences in a variety of situations.

Efficacy of Existent Pre-School Programs

Pre-school programs for the mentally retarded are still in an experimental stage in our educational system. This is the age at which the vacuum in special education is the greatest. This writer will now review the current research regarding established pre-school programs to indicate their effectiveness.

In 1958, Samuel Kirk, through the aid of the Illinois State Department of Public Instruction, "...sought to support

or refute the contention that special educational provisions can alter the rate of development in young mentally retarded children, and to isolate factors which might account for acceleration or depression in rate of development".[29] The results of the program, "... produced evidence that a stimulating pre-school has a positive effect in increasing the rate of growth of some mentally retarded children..."[30]

> He reported that 70 per cent of the children in the experimental group showed acceleration in rates of growth during the preschool attendance, and that they retained their higher level during the follow-up period. Comparision groups, which included siblings and twins of the experimental group, did not show a change in rate of mental growth. Sloan's research (1952) with institutionalized children, which was a part of Kirk's study, reported that children who received preschool training tended to increase in developmental rate, while those who remained in the wards tended to show a decrease in mental development as they grew older. Both Sloan and Kirk found that children with organic damage or psychotic behavior did not respond positively to the preschool program, while those whose low functioning appeared due to sterile surroundings made significant gains.[31]

Another experiment conducted at Columbia Teachers College by Fouracre and his associates concerned itself with the question of whether nursery school experiences with a competent teacher would accelerate the rate of acquisition of knowledge of pre-school retarded children. In the final analysis it was concluded:

> ... that the test results were not conclusive evidence of a positive effect of the preschool program on intel-

---

[29]Erickson, The Mentally Retarded In The Classroom, p. 61.

[30]Ibid., p. 62.

[31]Ibid., pp. 62-63.

> lectual functioning of young mentally retarded children. Test results which showed (a) slight, but not significant, changes in IQ and mental age in favor of the experimental group, (b) changes in scores in specific abilities that ranged from substantial gains to complete lack of scores, and (c) wide fluctuations in test results for the same test, lead Fouracre to discount the validity of test results for young mentally retarded children. Evaluation of growth in other areas, however, revealed more reliable evidence concerning the effects of preschool training.[32]

For any educational program to be optimally effective it must have the support and understanding of the parents. A 1965 pre-school program in Ypsilanti, Michigan, had as its major goal the development of a more positive parent attitude and a closer home-school relationship. Three and four year olds attended a daily morning session at school, and their teachers also gave individual tutoring at the home once a week. "The children in the experiment were compared to those in a traditional school, and on tests after the first and second grades of school, showed significantly higher scores in reading, language, and mathematics achievement."[33]

In 1968, the President's Committee Report on Mental Retardation stated:

> Studies have found the period of most rapid learning comes years before children reach school. Because of this, the range of a child's intelligence can either be enhanced or blunted by the environment provided for the child. Some new-look programs are now under way to give the retarded child a running start when his potential for learning is highest. Another goal is to prevent functional retardation.

---

[32] Ibid., p. 63.

[33] Preschool Breakthrough: What Works In Early Childhood Education, (Washington, D.C.: National School Public Relations Association, 1970), pp. 28-29.

> Programs range from infant stimulation projects to school-entrance readiness classes.[34]

Undoubtedly the most influential government legislation to promote public awareness of the effectiveness of pre-school programs for retarded children was the Handicapped Children's Early Education Assistance Act of September, 1968.

> The Act stemmed from the recognition that the preschool years are critical to a child's future development and that it is, therefore, important that handicaps which may cumulatively retard a child's learning and hamper his emotional and social adjustment be identified and prescribed for as soon as possible.[35]

The need for pre-school facilities for the mentally handicapped was confirmed and acted upon by our legislators in 1970, when the announcement of the first national center specifically concerned with research in the education of handicapped pre-school children was made by the United States Office of Education. A contract to set up a center for Research and Development in the Early Childhood of Handicapped Children was granted to the University of Oregon, Eugene.

The head of this center, Dr. George Shepard, believes that:

> ... it isn't too early to start the formal education of some children when they are only one year old. Impressive gains can be made in educating handicapped youngsters through new kinds of programs at the crucial preschool age when education is most effective. However, little

---

[34]President's Committee on Mental Retardation, MR 68: The Edge of Change (Washington, D.C.: U. S. Government Printing Office, 1968), p. 5.

[35]"Washington Report," Focus on Exceptional Children, Vol. I, No. 4, (September, 1969), p. 11.

is known about what techniques and materials will work best for handicapped preschoolers.[36]

After reading the data that have been gathered and reported on in this chapter, it is hoped that the reader will be more convinced of the need to be an advocate of early childhood education for the mentally retarded.

---

[36] Special Education Newsletter, National Catholic Educational Association, St. Louis, VIII, No. 2 (May, 1970), p. 21.

CHAPTER III

SUMMARY AND CONCLUSION

The writer has reviewed some developments in pre-school education for the mentally retarded to the present day. Emphasis is now being placed on the need for more educational programs in these most formative years from two to five.

Pre-school programs for mentally handicapped children are a promising intervention in the treatment of mental retardation. In this review of research the writer has looked at various ways in which these programs give the child a chance to develop. Various methodological techniques in the education of the mentally retarded were discussed as well as the emotional, social, and academic development of the handicapped child. The efficacy of existent pre-school programs was reported and studies cited.

Through this review of research it is evident that mentally retarded pre-school children need special educational curricula, facilities and teachers to promote maximum development of their existing potential. Only a small proportion of children needing special education are receiving it today. At the pre-school level the need is still great. As this writer reviewed research on the efficacy of pre-school pro-

grams it was noted that only recently have pre-school handicapped children been given any considerations. The cost of operation, the difficulties of identifying the children and the lack of facilities and programs have retarded pre-school projects. However, the cost of education at the pre-school level may be insignificant compared to the cost of support and care at a later age.

SELECTED BIBLIOGRAPHY

BOOKS

Baumeister, Alfred A., ed. Mental Retardation. Chicago: Aldine Publishing Company, 1967.

Bensberg, Gerald J. Teaching the Mentally Retarded. Atlanta: Southern Regional Education Board, 1965.

Blatt, Burton. The Intellectually Disfranchised. Boston: Monograph Series of the Dept. of Mental Health-Division of Mental Hygiene, 1966.

Delacato, Carl H. The Diagnosis and Treatment of Speech and Reading Problems. Springfield, Illinois: Charles C. Thomas, 1963.

Erickson, Marion J. The Mentally Retarded Child in the Classroom. New York: MacMillian Company, 1965.

Hess, R. D., ed. Bear, R. M., ed. Early Education. Chicago: Aldine Publishing Company, 1968.

Hymes, James L. Teaching the Child Under Six. Ohio: Charles E. Merrill Publishing Company, 1968.

Kirk, Samuel A., and Johnson, G. Orville. Educating the Retarded Child. Cambridge, Mass.: Houghton Mifflin Company, 1951.

Kirk, Samuel A., and Kirk, Winifred D. Psycholinguistic Learning Disabilities: Diagnosis and Remediation. Chicago: University of Illinois Press, 1971.

Kolburne, Luma Louis. Effective Education for the Mentally Retarded Child. New York: Vantage Press, 1965.

"Mental Retardation." Encyclopedia of Education. 1971. Vol. VI.

Molloy, Julia S. Teaching the Retarded Child to Talk. New York: John Day Company, 1961.

Myers, Patricia I., and Hammill, Donald D. Methods for Learning Disorders. New York: John Wiley and Sons, Inc., 1969.

Piaget, Jean. The Origins of Intelligence in Children. New York: W. W. Norton and Company, 1952.

Rambusch, Nancy McCormick. Learning How to Learn. Baltimore: Caramond Press, 1962.

Robinson, Halbert B., and Robinson, Nancy M. Early Education. Chicago: Aldine Publishing Company, 1968.

Robinson, Halbert B., and Robinson, Nancy M. The Mentally Retarded Child. University of North Carolina: McGraw-Hill Book Company, 1965.

Smith, Robert M. Clinical Teaching: Methods of Instruction for the Retarded. New York: McGraw-Hill Book Company, 1968.

Spodek, Bernard. The Disadvantaged Child. Boston: Houghton Mifflin Company, 1966.

Weber, Elmer W. Mentally Retarded Children and their Education. Springfield, Illinois: Charles C. Thomas, 1963.

Wunderlich, Ray C. Kids, Brains, and Learning. St. Petersburg, Florida: Johnny Reads, Inc., 1970.

PERIODICALS

Heber, Rick. "A Manual on Terminology and Classification in Mental Retardation." American Journal of Mental Deficiency Monograph Supplement, 1964, 3.

National Catholic Educational Association. Special Education Newsletter, Vol. VIII, No. 2, May, 1970, 21.

"Washington Report." Focus on Exceptional Children, Vol. I, No. 4 (September, 1969), 11.

GOVERNMENT PUBLICATIONS

Preschool Breakthrough: What Works In Early Childhood Education. Washington, D. C.: National School Public Relations Association, 1970.

President's Committee on Mental Retardation. MR 68: The Edge of Change. Washington, D. C.: U. S. Government Printing Office, 1968.

President's Panel on Mental Retardation. A Proposed Program For National Action to Combat Mental Retardation. Washington, D. C.: Government Printing, 1962.

TESTS

Frostig, Marianne. Developmental Test of Visual Perception. Alto, California: Consulting Psychologists Press, 1964.

Kuhlmann, F., and Anderson, R. Intelligence Tests. (Fourth edition) Minneapolis, Minnesota: Educational Test Bureau, 1940.

Roach, E. F., and Kephart, N. C. The Purdue Perceptual Motor Survey. Columbus, Ohio: Charles E. Merrill, Inc., 1966.

Terman, Lewis M., and Merrill, Maud A. Stanford-Binet Intelligence Scale. (Third revision) Boston, Massachusetts: Houghton Mifflin Company, 1960.